

## FG-100B

### Thermometer with Auto-measurement Function



- Automatic temperature measurement can minimize individual differences in measuring temperature.
- Measurement counter can be useful for control of changing sensor.
- Long life sensor AS5000 (with certificate of conformance) is equipped as standard.

#### Packing List

<b>FG-100B</b>	Unit, 006P 9 V Manganese dry battery (for trial), Sensor, Instruction manual
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#### Specifications

Model No.	FG-100B
Power supply	006P 9 V dry battery (alkaline cell recommended)
Temperature resolution	1°C
Temperature measurement range	0 to 700°C
Temperature precision	±3°C (300 to 600°C) ±5°C (other than above)
Temperature sensor*	K (CA) type thermocouple
Display	LCD: 3 1/2 digits
Operating environment	Ambient temperature/Humidity range: 0 to 40°C, max.80% RH (without condensation)
Environmental conditions	Applicable rated pollution degree 2 (according to IEC/UL 61010-1)
Dimensions**	68 (W) × 140 (H) × 38 (D) mm
Weight***	125 g

\* The temperature sensor can only be used to measure temperatures below 500°C.  
To measure higher temperatures, use an applicable temperature probe.

\*\* Excluding protrusions

\*\*\* Without battery

## Features

**Minimize individual differences in how to complete measurement and read result.**

\* Image photo below

AUTO HOLD function and MAX HOLD function cannot be used at the same time.



### 1. AUTO HOLD Function

The measurement will end automatically when tip temperature is stabilized.

The measurement process will be the same no matter who does it.

### 2. MAX HOLD Function

Max measured tip temperature will be displayed.

This function can be useful for quality control of components and P.W.B.

### 3. Temperature Measurement Count Function

Number of tip temperature measurement will be automatically counted.

This function can be useful for control of changing sensor.

## Temperature Sending Function

Measurement result by AUTO HOLD function or MAX HOLD function can be sent to a soldering station (FN-1010 : refer to P.10) through infrared.

This function can eliminate manual process of recording results, the time for the process, and human error.

## Option / Replacements

Part No.	Name	Specifications
A1310	Temperature probe	For solder bath and pot
C1541	Temperature probe	For hot air station
A1556	Sensor A	—
A1557	Sensor B	—
AS5000	Sensor	lead-free with cert conformance

**Long life sensor AS5000 (for FG-100B, FG-101B and FG-102) is equipped as standard.**

Lasts 30 times longer than a conventional sensor\*.

Save troubles of sensor replacements and enhance stable measurement for a long time. Certificate of conformance is included.

\* Based on our in-house test



## FG-102

### Soldering Iron Thermometer with Traceability Management System



- Free of errors in temperature measurement
- Free of transcription errors for measured temperature
- Standardization of temperature measurement
- Secure management of tip temperature records
- Long life sensor AS5000 (with certificate of conformance) is equipped as standard.

#### Packing List

<b>FG-102</b>	Unit, Battery (6 pcs, for trial), Barcode reader, USB cable, Software (CD-ROM), Sensor, Barcode sticker for soldering iron ID (30 pcs), Barcode sticker for operator ID (30 pcs), Instruction manual
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#### Option / Replacements

Part No.	Name	Specifications
A1310	Temperature probe	for soldering bath and pot
C1541	Temperature probe	for hot air station
A1556	Sensor A	—
A1557	Sensor B	—
C5009	Bar code reader	—
AS5000	Sensor	lead-free with cert conformance

#### Specifications

Model No.	FG-102
Power supply	AA sized (LR6) battery x 6 (alkaline cell recommended)
Temperature resolution	1°C
Temperature measurement range	0 to 700°C
Temperature precision	±3°C (300 to 600°C) ±5°C (other than above)
Temperature sensor*	K (CA) type thermocouple
Display	LCD
Operating environment	Ambient temperature/Humidity range: 0 to 40°C, max.80% RH (without condensation)
Environmental conditions	Applicable rated pollution degree 2 (according to IEC/UL 61010-1)
Dimensions**	193 (W) x 90 (H) x 219 (D) mm
Weight***	0.93 kg

\* Temperature sensor can only be used if measure temperatures below 500°C.  
To measure higher temperatures, use an applicable temperature probe.

\*\* Without barcode reader

\*\*\* Without battery and barcode reader

\*\*\*\* Traceability management function can only be used for soldering irons.

## Features

### An Innovation in Tip Temperature Control

#### Flow chart of management



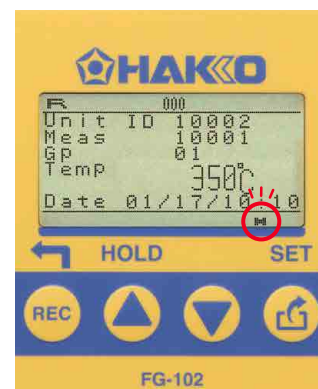
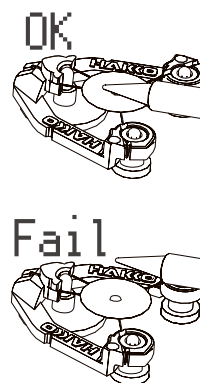
1. Scan the unit and the measurer's ID by a barcode reader.
2. Measure the temperature.
3. Press the REC button to save the data on the unit main body.
4. Transfer and save the data on the PC.

### Free of errors in temperature measurement by standardization of temperature measurement

The unit has a function to notify the end of measurement. When measurement is finished, "H" icon stops blinking. The unit can find measurement errors and prompt an operator to repeat measurement. The display shows "Fail" if tip loses appropriate contact with sensor before completion of measurement.

#### Pass/Fail judgment on measured temperature

Pass/Fail judgment on measured temperature can be automatically made if an acceptable temperature range is registered in advance (the display shows "OK" or "Fail").



### Make it easy to manage tip temperature records by transferring the data to computer



No	InstID	Gr No	MeasID	Temp	Set Temp	Month	day	hour	min	sec	OK/NG
1	10023	0	10005	375	0	10	21	14	47	---	---
2	10024	0	10005	372	0	10	22	14	48	---	---
3	10025	0	10005	372	0	10	23	14	49	---	---
4	10026	0	10005	373	0	10	24	14	50	---	---
5	10027	0	10005	375	0	10	25	14	51	---	---
6	10028	0	10005	375	0	10	26	14	52	---	---
7	10029	0	10005	373	0	10	27	14	53	---	---
8	10030	0	10005	376	0	10	28	14	54	---	---
9	10001	1	10005	371	380	10	29	14	55	OK	OK
10	10002	1	10005	371	380	10	30	14	55	OK	OK
11	10003	1	10005	372	380	10	31	14	56	OK	OK
12	10004	1	10005	382	380	10	32	14	57	OK	OK
13	10005	5	10005	382	380	10	33	15	3	NG	NG
14	10006	5	10005	380	380	10	34	15	4	NG	NG

Free of transcription errors for measured temperature

## More Features



#### Group control

Groups can be created based on different set temperatures for different operations. Pass/Fail judgment on measured temperatures can be automatically made for different acceptable temperature ranges.



Automatic counting of the number of measurements



Notification of the calibration date

## FG-101B New

### Soldering Iron Tester with Auto-measurement Function



- Soldering iron tester for measurement of tip temperature, leak voltage, and tip to ground resistance
- Human error-free operation
- Long life sensor AS5000 (with certificate of conformance) is equipped as standard.

#### Packing List

<b>FG-101B</b>	Unit, Conduction wire, Ground clip, Multi-adapter*, European adapter*, Fuse, Power cord, Sensor, Instruction manual
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\*May not be included depending on the specifications

#### Option / Replacements

Part No.	Name	Specifications
A1310	Temperature probe	For solder bath and pot
C1541	Temperature probe	For hot air station
A1556	Sensor A	—
A1557	Sensor B	—
C5055	Adapter module	—
AS5000	Sensor	lead-free with cert conformance

#### Specifications

Model No.	FG-101B
Power consumption	3.6 W
Temperature resolution	1°C
Temperature measurement range	0 to 700°C
Temperature precision	±3°C (300 to 600°C) ±5°C (other than above)
Temperature sensor*	K (CA) type thermocouple
Voltage resolution	0.1 mV
Voltage measurement range	0 to 40 mV (AC)
Voltage precision	± (5% of reading + 1 digit)
Resistance resolution	0.1 Ω
Resistance measurement range	0 to 40 Ω
Resistance precision	± (5% of reading + 1 digit)
Display	LCD : 3 1/2 digits
Operating environment	Ambient temperature/Humidity range: 0 to 40°C, max.80% RH (without condensation)
Environmental conditions	Applicable rated pollution degree 2 (According to IEC/UL61010-1)
Dimensions	211(W) × 53(H) × 126(D) mm
Weight	0.95 kg

\* The Temperature sensors can only be used to measure temperatures below 500°C. To measure higher temperatures, use an appropriate temperature probe.



## Features

**For the daily maintenance of soldering station**  
Control of "tip temperature", "leak voltage", and "tip to ground resistance" is required for a grounded soldering station for electronic components.



### What is leak voltage and tip-to-ground resistance?

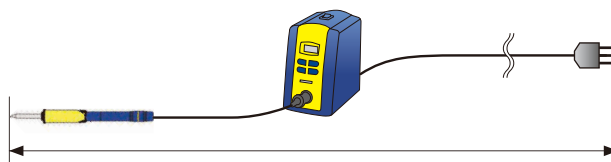
#### Leak voltage

Leak current is the current that leaks from the tip to a board or device. Leak voltage is a specific measurement of the level of this current. The leakage can adversely affect delicate devices, so it is necessary to check leak voltage on a daily basis.



#### Tip-to-ground resistance

Most leak current flows from the tip via the ground wire to the outlet ground terminal, and is prevented from affecting the device. Because of this, tip-to-ground resistance is another important issue that must be checked daily.



### Human error-free operation



#### 1. AUTO HOLD function

The measurement will end automatically when the displayed tip temperature is stabilized.

Individual differences in temperature measurement can be minimized.

#### 2. Data send function (infrared)

Measurement result can be sent to IoT capable soldering station, such as FN-1010, and be recorded automatically.

Human errors in manual recording can be eliminated.

## Option

### Adapter module

By connecting FG-101B and IoT capable soldering station, such as FN-1010, with adapter module, data transfer can be easy and smooth.

For more details, please visit website.

